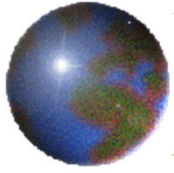


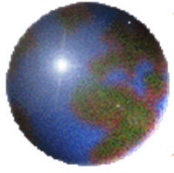
The Scientific Revolution & Enlightenment

16th – 18th century developments in science, technology, philosophy, music, art and literature.



The Scientific Revolution

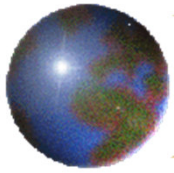
The year 1543 may be taken as the beginning of the scientific revolution, for it was then that Copernicus published *The Revolution of the Heavenly Bodies* and Vesalius, *On the Structure of the Human Body*. Within a century and a half, man's conception of himself and the universe he inhabited was altered, and the scholastic method of reasoning was replaced by new scientific methods.



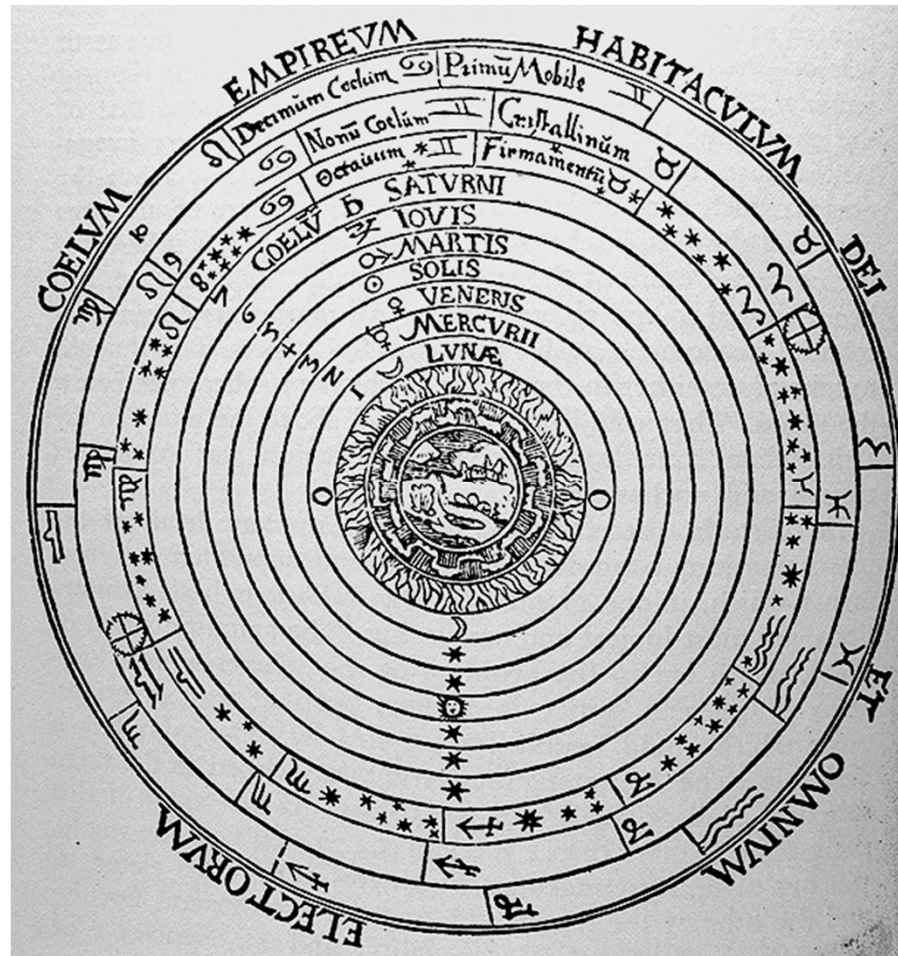
Ptolemy & the Geocentric Theory

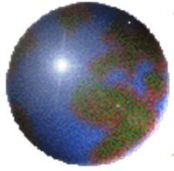


- Early scientific thought was based a great deal of the work of Aristotle and Ptolemy. They believed that the earth was the center of the universe and that the sun and planets revolved around it.



Ptolemaic universe

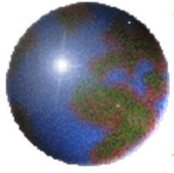




Copernicus and the Heliocentric Theory

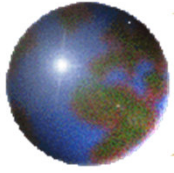
- ✿ Copernicus believed the opposite was true, and published his findings just prior to his death in 1543. He feared criticism from the Church, which supported the geocentric view of the universe.





Others support the Copernican theory

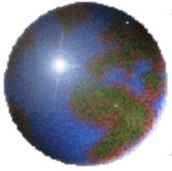
- ✚ Tycho Brahe
- ✚ Johannes Kepler
- ✚ Galileo Galilei



The Scientific Method

- ✦ Francis Bacon, possibly the illegitimate son of Elizabeth I and the true author of many Shakespearean plays, developed the scientific method. This emphasized observation and experimentation before reaching a conclusion.

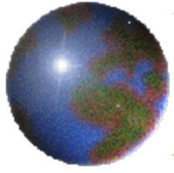




Isaac Newton's mathematical proofs



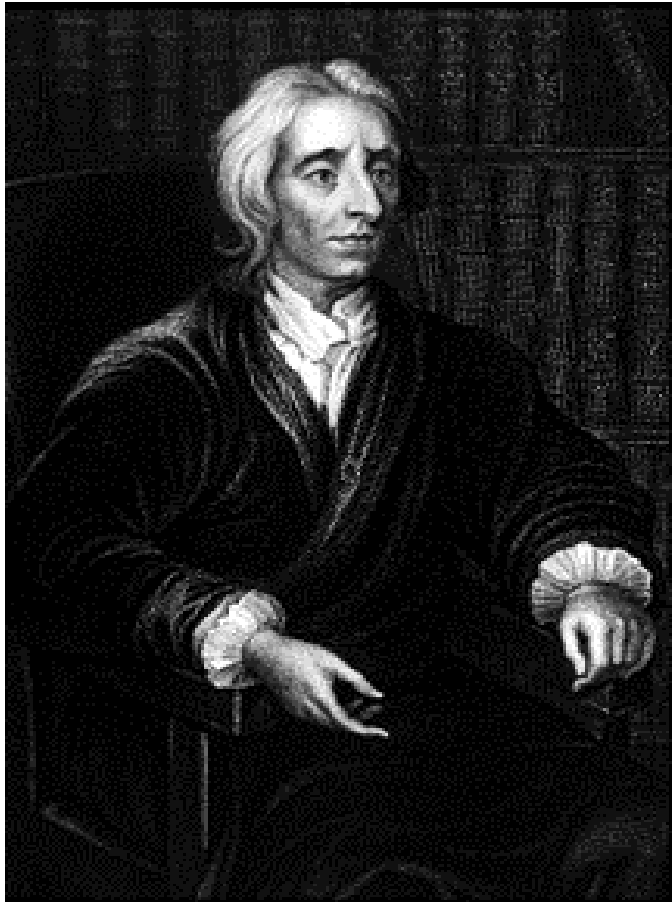
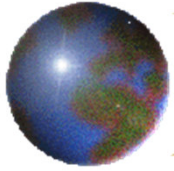
- ✚ Considered the father of calculus, Isaac Newton proved mathematically what others had theorized.



The Enlightenment

- ✪ As scientists looked for ways to explain the way in the universe was organized, philosophes looked for ways to explain how society was organized.





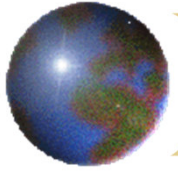
John Locke (1632-1704)

*"Though the familiar use of the Things about us,
takes off our Wonder; yet it cures not our
Ignorance."*

*---An Essay Concerning Human Understanding (III.
vi. 9)*

*"...he that will not give just occasion to think that
all government in the world is the product only of
force and violence, and that men live together by
no other rules but that of beasts, where the
strongest carries it...must of necessity find another
rise of government, another original of political
power..."*

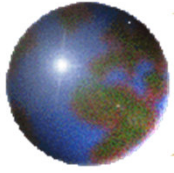
---from The Second Treatise of Civil Government



Hobbes – you're locked, Locke – you're not

✚ Thomas Hobbes believed the social contract between a ruler and the people was unbreakable, which supported absolutism as a type of government.

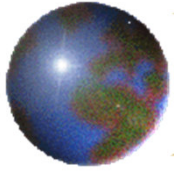
✚ John Locke disagreed, and said the people have the right to overthrow a leader who fails to protect their natural rights – life, liberty, and property.



Montesquieu & separation of powers

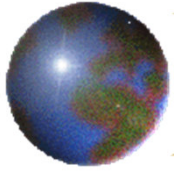
- ✪ His proposal for a legislative, executive, and judicial branch of government was designed to prevent any one part of government from becoming too powerful.





Rousseau & the noble savage

*"Man is born free and
everywhere is in chains."*

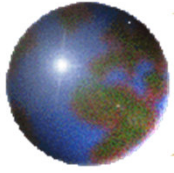


Rousseau & the noble savage

✚ Rousseau believed that the best form of government would exist when people submitted to the **general will** of the majority.

✚ He wrote *The Social Contract*, which described his political theory.

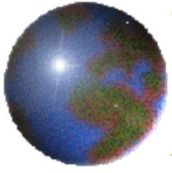




Voltaire & the enlightened despot



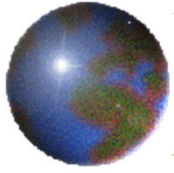
- ✪ Voltaire believed the best government was on led by an enlightened monarch, and had little confidence in people's ability to democratically choose a leader.



Voltaire



- ✚ Voltaire was friends with Frederick the Great of Prussia and admired his actions.
- ✚ Voltaire supported free speech, free press, and religious toleration.
- ✚ *"I may not agree with a word you say, but I will defend to the death your right to say it."*

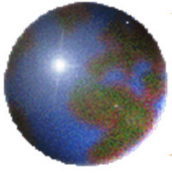


Salons

Hosted by wealthy Parisian women, salons provided French philosophes a place to share and discuss their ideas.



Salon de Mme Geoffrin (détail par Lemonier)



Mary Wollstonecraft



- ❖ One of the few vocal women of the period, she wrote *A Vindication of the Rights of Women*, a plea for rights for women.